

ABSTRACT

The inventors succeeded in cloning a protein binding to Reg 5 protein from rat pancreatic Langerhans' islet-derived cDNA. It was revealed that the protein expressed on the COS cell surface specifically binds to Reg protein. When the Reg-binding protein is expressed in RINm5F β cells, DNA synthesis and cell proliferation are stimulated depending on the dose of the Reg protein added to the medium, 10 and at a higher concentration, apoptosis is induced. It is considered that the protein functions as a Reg receptor expressed on the surface of cells such as β cells and regulates the proliferation of these cells. The protein and gene thereof are useful in developing novel therapeutic agents for diabetes.

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